CLAIMS

 A bicycloamide derivative represented by the following general formula (1):

$$\begin{array}{c|c}
R^1 & O & X \\
N & N & N \\
R^2 & N & N \\
\end{array}$$
(1)

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[wherein R^1 and R^2 may or may not be identical to one another and are each independently a hydrogen atom, substituted or unsubstituted C_1 to C_6 alkyl group, substituted or unsubstituted C_3 to C_6 cycloalkyl group, substituted or unsubstituted arylmethyl group, substituted or unsubstituted arylethyl group, substituted or unsubstituted aromatic hydrocarbon group, substituted or unsubstituted aromatic heterocyclic ring, substituted or unsubstituted aliphatic heterocyclic ring or NR^3R^4 (wherein R^3 and R^4 may or may not be identical to one another and are each independently a hydrogen atom, substituted or unsubstituted C_1 to C_6 alkyl group, substituted or unsubstituted C3 to C6 cycloalkyl group, substituted or unsubstituted arylmethyl group, substituted or unsubstituted aromatic hydrocarbon group, substituted or unsubstituted aromatic heterocyclic ring or substituted or unsubstituted aliphatic heterocyclic ring, or R³ and R⁴ may together form a ring structure.), or R1 and R2 may together form a ring structure; X is CH2, CHF, CF2, CHOH, S or O; and n

is 1, 2 or 3.],
or a pharmaceutically acceptable salt thereof.

2. The bicycloamide derivative according to claim 1, represented by the following general formula (2):

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[wherein R^5 is a substituted or unsubstituted C_1 to C_6 alkyl group, substituted or unsubstituted C3 to C6 cycloalkyl group, substituted or unsubstituted arylmethyl group, substituted or unsubstituted arylethyl group, substituted or unsubstituted aromatic hydrocarbon group, substituted or unsubstituted aromatic heterocyclic ring, substituted or unsubstituted aliphatic heterocyclic ring or NR3R4 (wherein R3 and R4 may or may not be identical to one another and are each independently a hydrogen atom, substituted or unsubstituted C₁ to C₆ alkyl group, substituted or unsubstituted C_3 to C_6 cycloalkyl group, substituted or unsubstituted arylmethyl group, substituted or unsubstituted aromatic hydrocarbon group, substituted or unsubstituted aromatic heterocyclic ring or substituted or unsubstituted aliphatic heterocyclic ring, or R³ and R⁴ may together form a ring structure.); X is CH2, CHF, CF2, CHOH, S or O; and n is 1, 2 or 3.],

or a pharmaceutically acceptable salt thereof.

3. The bicycloamide derivative according to claim 1, represented by the following general formula (3):

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[wherein ${\ensuremath{R}^7}$ and ${\ensuremath{R}^8}$ may or may not be identical to one another and are each independently a substituted or unsubstituted C_1 to C_6 alkyl group, substituted or unsubstituted C_3 to C_6 cycloalkyl group, substituted or unsubstituted arylmethyl group, substituted or unsubstituted arylethyl group, substituted or unsubstituted aromatic hydrocarbon group, substituted or unsubstituted aromatic heterocyclic ring, substituted or unsubstituted aliphatic heterocyclic ring or NR3R4 (wherein R3 and R4 may or may not be identical to one another and are each independently a hydrogen atom, substituted or unsubstituted C_1 to C_6 alkyl group, substituted or unsubstituted C3 to C6 cycloalkyl group, substituted or unsubstituted arylmethyl group, substituted or unsubstituted aromatic hydrocarbon group, substituted or unsubstituted aromatic heterocyclic ring or substituted or unsubstituted aliphatic heterocyclic ring, or ${\ensuremath{\text{R}}}^3$ and ${\ensuremath{\text{R}}}^4$ may together form a ring structure.), or $\ensuremath{\text{R}^{7}}$ and $\ensuremath{\text{R}^{8}}$ may together form a ring

structure; X is CH₂, CHF, CF₂, CHOH, S or O; and n is 1, 2 or 3.],

or a pharmaceutically acceptable salt thereof.

5 An intermediate in the production of the bicycloamide derivative of claim 1, represented by the following formula (4):

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[wherein R^1 and R^2 may or may not be identical to one another and are each independently a hydrogen atom, substituted or unsubstituted C_1 to C_6 alkyl group, substituted or unsubstituted C3 to C6 cycloalkyl group, substituted or unsubstituted arylmethyl group, substituted or unsubstituted arylethyl group, substituted or unsubstituted aromatic 15 hydrocarbon group, substituted or unsubstituted aromatic heterocyclic ring, substituted or unsubstituted aliphatic heterocyclic ring or NR^4R^5 (wherein R^4 and R^5 may or may not be identical to one another and are each independently a hydrogen atom, substituted or unsubstituted C_1 to C_6 alkyl group, substituted or unsubstituted C3 to C6 cycloalkyl group, substituted or unsubstituted arylmethyl group, substituted or unsubstituted aromatic hydrocarbon group, substituted or

unsubstituted aromatic heterocyclic ring or substituted or unsubstituted aliphatic heterocyclic ring, or R^4 and R^5 may together form a ring structure.), or R^1 and R^2 may together form a ring structure; X is CH_2 , CHF, CF_2 , CHOH, S or O; n is 1, 2 or 3; and P^1 is an amino-protecting group].

5. A pharmaceutical product, containing as an active ingredient the bicycloamide derivative according to claim 1 or a pharmaceutically acceptable salt thereof.

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- 6. A DPP-IV inhibitor, containing as an active ingredient the bicycloamide derivative according to claim 1 or a pharmaceutically acceptable salt thereof.
- 15 7. A therapeutic agent for treating diseases involving DPP-IV, containing as an active ingredient the bicycloamide derivative according to claim 1 or a pharmaceutically acceptable salt thereof.
- 20 8. The therapeutic agent according to claim 7, wherein the disease involving DPP-IV is diabetes or a complication thereof.